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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/365,678	08/02/1999	ESHWAR PITTAMPALLI	CASE-11	2090

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EXAMINER	
PHUONG, DAI	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
05/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/365,678	PITTAMPALLI, ESHWAR	
	Examiner	Art Unit	
	Dai A. Phuong	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08/02/1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments, filed 01/25/2007, with respect to claims have been considered but are moot in view of the new ground(s) of rejection. Claims 1-19 are currently pending.

Drawings

2. The drawings are objected to because drawings are informal. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Lewis (U.S. 6393261).

Regarding claim 1, Lewis disclose a method of maintaining a communication link comprising the steps of: initiating, via a master device, unregistration at a controller, the unregistration being of a dependent in communication with the master device using a communication channel on a frequency band fband(1); and transmitting a message to the dependent indicating to the dependent to register with a communications network using a frequency band fband(2) (col. 8, lines 28-44).

Regarding claim 2, Lewis discloses all the limitation in claim 1. Further, Lewis discloses the method comprising the additional steps of: receiving a registration message from the master device on the frequency band fband(1) indicating the dependent; and registering the dependent with the master device before the step of unregistering (col. 8, lines 28-44).

Regarding claim 4, Lewis discloses all the limitation in claim 1. Further, Lewis discloses the method wherein the dependent is unregistered when an unregistration message is received (col. 8, lines 28-44).

Regarding claim 8, Lewis discloses all the limitation in claim 1. Further, Lewis discloses the method wherein the message is transmitted using a frequency band fband(2) (col. 8, lines 28-44).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 5-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (U.S. 6393261) in view of Farwell et al. (U.S. 5396541).

Regarding claim 3, Lewis discloses all the limitation in claim 1. However, Lewis does not disclose the method comprising the additional step of: transmitting another message indicating to the communications network to register the dependent with the communications network via the controller.

In the same field of endeavor, Farwell et al. disclose the method comprising the additional step of: transmitting another message indicating to the communications network to register the dependent with the communications network via the controller (col. 3, line 22 to col. 4, line 29)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multi communication access point of Lewis by specifically including the method comprising the additional step of: transmitting another message indicating to the communications network to register the dependent with the communications network via the controller, as taught by Farwell et al., the motivation being in order to allow the determination of which cell a mobile unit should be handed off to which will work in the spread spectrum environment and not require the use of reusable dedicated channels. Additionally, the system controller transfers the wireless mobile unit to the base station which is receiving the strongest signal strength.

Regarding claim 5, Lewis discloses all the limitation in claim 1. However, Lewis does not disclose the method wherein the dependent is unregistered when a strength of a signal transmitted between the dependent and the master device on the frequency band fband(1) falls below a threshold value.

In the same field of endeavor, Farwell et al. disclose the method wherein the dependent is unregistered when a strength of a signal transmitted between the dependent and the master device on the frequency band fband(1) falls below a threshold value (col. 3, line 22 to col. 4, line 29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multi communication access point of Lewis by specifically wherein the dependent is unregistered when a strength of a signal transmitted between the dependent and the master device on the frequency band fband(1) falls below a threshold value, as taught by Farwell et al., the motivation being in order to allow the determination of which cell a

mobile unit should be handed off to which will work in the spread spectrum environment and not require the use of reusable dedicated channels. Additionally, the system controller transfers the wireless mobile unit to the base station which is receiving the strongest signal strength.

Regarding claim 6, the combination of Lewis and Farwell et al. disclose all the limitation in claim 5. Further, Farwell et al. disclose the method comprising the additional step of: monitoring a communication channel associated with the master device on the frequency band fband(1) (col. 3, line 22 to col. 4, line 29).

Regarding claim 7, the combination of Lewis and Farwell et al. disclose all the limitation in claim 6. Further, Farwell et al. disclose wherein the communication channel is defined by a frequency hopping sequence (col. 3, line 22 to col. 4, line 29).

Regarding claim 9, Lewis discloses all the limitation in claim 1. However, Lewis does not disclose the method comprising the additional step of: transmitting a handoff message to the communications network indicating to the communications network to communicate directly with the dependent.

In the same field of endeavor, Farwell et al. disclose the method comprising the additional step of." transmitting a handoff message to the communications network indicating to the communications network to communicate directly with the dependent (col. 3, line 22 to col. 4, line 29)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multi communication access point of Lewis by specifically including the method comprising the additional step of: transmitting a handoff message to the communications network indicating to the communications network to communicate directly

with the dependent, as taught by Farwell et al., the motivation being in order to allow the determination of which cell a mobile unit should be handed off to which will work in the spread spectrum environment and not require the use of reusable dedicated channels. Additionally, the system controller transfers the wireless mobile unit to the base station which is receiving the strongest signal strength.

Regarding claim 10, the combination of Lewis and Farwell et al. disclose all the limitation in claim 9. Further, Farwell et al. disclose the method wherein the handoff message is transmitted on the frequency band fband(2) (col. 3, line 22 to col. 4, line 29).

6. Claims 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (U.S. 5633888) in view of Farwell et al. (U.S. 5396541).

Regarding claim 11, Stewart discloses a method for maintaining a communication link comprising the steps of:

searching at a dependent for one or more frequency hopping sequences from a set of frequency hopping sequences (col. 10, lines 1-57);

registering the dependent with a first master device and a controller when a first frequency hopping sequence is detected, the first frequency hopping sequence being associated with the first master device (col. 10, lines 1-57);

continuously monitoring for frequency hopping sequences in the set of frequency hopping sequences (col. 10, lines 1-57);

registering the dependent with a second master device if the dependent detects a signal transmitted on a second frequency hopping sequence associated with the second master device

having a higher signal strength than a signal transmitted on the first frequency hopping sequence (col. 10, lines 1-57).

However, Stewart does not disclose registering the dependent with *one of (1) the controller and (2) a second master device & the controller.*

In the same field of endeavor, Farwell et al. disclose registering the dependent with ***a first master device and a controller*** when a first frequency hopping sequence is detected (col. 3, line 22 to col. 4, line 29);

registering the dependent with ***one of (1) the controller and (2) a second master device & the controller*** if the dependent detects a signal strength (col. 3, line 22 to col. 4, line 29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multi communication access point of Stewart by specifically including registering the dependent with *a first master device and a controller* when a first frequency hopping sequence is detected; registering the dependent with *one of (1) the controller and (2) a second master device & the controller* if the dependent detects a signal strength, as taught by Farwell et al., the motivation being in order to allow the determination of which cell a mobile unit should be handed off to which will work in the spread spectrum environment and not require the use of reusable dedicated channels. Additionally, the system controller transfers the wireless mobile unit to the base station which is receiving the strongest signal strength.

Regarding claim 12, the combination of Stewart and Farwell et al. disclose all the limitation in claim 11. Further, Stewart discloses the method wherein the step of registering the

dependent with the first master device comprises the step of: transmitting a registration message to the first master device using the first frequency hopping sequence (col. 10, lines 1-57).

Regarding claim 13, the combination of Stewart and Farwell et al. disclose all the limitation in claim 11. Further, Stewart discloses the method wherein the step of registering the dependent with the second master device comprises the step of: transmitting a registration message to the second master device using the second frequency hopping sequence (col. 10, lines 1-57).

Regarding claim 14, the combination of Stewart and Farwell et al. disclose all the limitation in claim 11. Further, Stewart discloses the method wherein the set of frequency hopping sequences use a first frequency band fband(1) (col. 10, lines 1-57).

Regarding claim 15, the combination of Stewart and Farwell et al. disclose all the limitation in claim 14. Further, Stewart discloses the method comprising the additional step of: searching for a signal transmitted using a second frequency band fband(2) if no frequency hopping sequence in the set are detected (col. 10, lines 1-57).

Regarding claim 16, the combination of Stewart and Farwell et al. disclose all the limitation in claim 15. Further, Farwell et al. disclose the method comprising the additional step of:registering with a communication network when the second frequency band fband(2) is detected, the communications network being associated with the second frequency band fband(2) (col. 3, line 22 to col. 4, line 29).

Regarding claim 17, the combination of Stewart and Farwell et al. disclose all the limitation in claim 11. Further, Stewart discloses the method comprising the additional steps of: receiving a registration message indicating the dependent to register with a

communications network; and registering with the communication network using a second frequency band fband(2) (col. 3, line 22 to col. 4, line 29).

7. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (U.S. 5633888) in view of Yamauchi et al. (U.S. 6295310).

Regarding claim 18, Stewart discloses a method for maintaining a communication link comprising the steps of:

receiving a first registration message at a master device from a dependent over a first frequency hopping sequence associated with the master device (col. 10, lines 1-57);

transmitting a second registration message over a second frequency hopping sequence associated with a second master device (col. 10, lines 1-57);

monitoring a strength at the dependent (mobile device) for a signal transmitted by the dependent over the first frequency hopping sequence (col. 10, lines 1-57); and

transmitting an unregistration message over the second frequency hopping sequence if the strength of the signal transmitted over the first frequency hopping sequence falls below a threshold value (col. 10, lines 1-57).

However, Stewart does not disclose monitoring a strength at the master device for a signal transmitted by the dependent over the first frequency hopping.

In the same field of endeavor, Yamauchi et al. disclose monitoring a strength at the master device for a signal transmitted by the dependent over the first frequency hopping (col. 4, lines 39-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multi communication access point of Stewart by specifically

including monitoring a strength at the master device for a signal transmitted by the dependent over the first frequency hopping, as taught by Yamauchi et al., the motivation being in order to switches the first frequency to a second one next thereto in the hopping sequence and keeps on communicating with the base station at the second frequency based on the received power of a signal received from the base station at a first frequency in the hopping sequence.

Regarding claim 19, the combination of Stewart and Yamauchi et al. disclose all the limitation in claim 18. Further, Steward discloses the method wherein the first and second frequency hopping sequences are part of a set of frequency hopping sequences on a same frequency band (col. 10, lines 1-57).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen M Duc can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-7503.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong
AU: 2617
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